part of #4

Appendix to
Protest under 37 CFR 1.291

In Re: Application of Dickens

Serial No: 09/512,592

Filing Date: February 23, 2000
            Notice of the application published on May 16, 2000

For: For: Re-issue of U.S. Patent 5,806,063
            Issued September 8, 1998
            Based on application Serial No. 725,574
            Filed October 3, 1996
            Entitled: Date formatting and sorting for date spanning the turn of the century

Claim Charts

DeForest   DEF1-15
Ohms   OH1-10
Japanese Publication PUPA1-76
Shaughnessy   SH1-27

Exhibit List

1   Fig. 1 and 2 of the original application, as filed
2   Dickens Exhibit A
3   Claim 1 of the application, as filed
4   Claim 11 of the application, as filed
5   Supplemental amendment of April 1998
6   Lysgaard, "The Time Bomb", IFIP TC8 Conference on Governmental and Municipal
     Information   Systems, p. 513-519, 1987
7   Ohms, "Computer Processing of Dates Outside the 20th Century", IBM Systems Journal,
     Volume 25, Number 2, 1986, pages 244-251
8   Shaughnessy U.S. Patent 5,630,118;
9   Shaw, "CAP Gemnni Tackles the Year 2000", NEWS 3X/400, June 1995, p. 30
10   DeForest Post to comp.lang.cobol of April 24, 1995
11   Japanese Published Application 06-103133, April 15, 1994
12   Japanese Published Application 06-103133, April 15, 1994 – Translation

15319_1

Reissue Application	DeForest Post to comp.lang.cobol Forum of April 24, 1995
1. A method of processing symbolic representations of dates stored in a database, comprising the steps of	The "flat out file conversion" is a processing of date data from a database
providing a database with symbolic representations of dates stored therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	The four lines after "01" show use of DD, MM and YY data. The author acknowledges the time limitation of the process, this corresponds to the claimed window limitation.
selecting a 10-decade window with a Y_AY_B value for the first decade of the window Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	The selection of $Y_AY_B = 50$ carries an implicit 10 decade limitation, with 50 being "no later" as claimed.
determining a century designator C_1C_2 for each symbolic representation of a date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B ; and	The century determination in the logic is substantively identical to Dickens' Exhibit A and is thus an anticipation which is should be considered as admitted by Dickens.
reformatting the symbolic representation of the date with the values C_1C_2, Y_1Y_2, M_1M_2 , and D_1D_2 to facilitate further processing of the dates.	The reformatting is also identical to Exhibit A and is thus an anticipation which should be considered as admitted by Dickens

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Reissue Application	DeForest Post to comp.lang.cobol Forum of April 24, 1995
2. The method of claim 1, wherein the 10-decade window includes the decade beginning in the year 2000.	DeForest is directed to Y2K and by definition propose a window which includes the year 2000
3. The method of claim 2, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	DeForest explicitly describes the century designators 19 and 20
4. The method of claim 1, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates.	Response, p. 14 admits that sorting after Y2K correction is part of the prior art.
5. The method of claim 1, wherein the step of reformatting includes the step of reformatting each symbolic representation of a date into the format $C_1C_2Y_1Y_2M_1M_2D_1D_2$.	The post shows the identical reformatting, and the reference to a "file conversion" indicates the procedure is applied to each date in the file.
6. The method of claim 5, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates using a numerical-order sort.	Response, p. 14 admits that sorting after Y2K correction is part of the prior art.
8. The method of claim 1, wherein the step of selecting includes the step of selecting Y_AY_B such that Y_B is 0 (zero).	The Post shows that $Y_AY_B = 50$, i.e., Y_B is 0 (zero).
9. The method of claim 1, including an additional step, after the step of reformatting, of storing the symbolic representation of dates and their associated information back into the database.	DeForest's reference to a "flat out file conversion" inherently includes storing the reformatted data.
10. The method of claim 9, including the additional step, after the step of reformatting, of manipulating information in the database having the reformatted date information therein.	Data bases are used for accessing and using the stored information, thus the manipulating is inherent.

Reissue Application	DeForest Post to comp.lang.cobol Forum of April 24, 1995
11. A method of processing dates in a database, comprising the steps of	The "flat out file conversion" is a processing of date data from a database
providing a database with dates stored therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator, all of dates falling within a 10-decade period of time which includes the decade beginning in the year 2000;	The four lines after "01" show use of DD, MM and YY data. The author acknowledges the time limitation of the process, this corresponds to the claimed window limitation.
selecting a 10-decade window with a Y_AY_B value for the first decade of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	The selection of Y_AY_B = 50 carries an implicit 10 decade limitation, with 50 being "no later" as claimed.
determining a century designator C_1C_2 for each date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B;	The century determination in the logic is substantively identical to Dickens' Exhibit A and is thus an anticipation which should be considered as admitted by Dickens.
reformatting each date in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$ to facilitate further processing of the dates; and	The reformatting is also identical to Exhibit A and is thus an anticipation which should be considered as admitted by Dickens
sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$.	Dickens admits, Response, p. 14, that sorting "after Y2K correction" is part of the prior art

Reissue Application	DeForest Post to comp.lang.cobol Forum of April 24, 1995
13. The method of claim 11, wherein the step of selecting includes the step of selecting Y_AY_B.	DeForest has selected Y_AY_B = 50, i.e., Y_B is 0 (zero).
14. The method of claim 11, including an additional step, after the step of sorting, of storing the sorted dates and their associated information back into the database.	The indication that the author's "solution" is a "flat out file conversion" indicates that the result of the conversion is stored.
15. The method of claim 14, including the additional step, after the step of sorting, of manipulating information in the database having the reformatted date therein.	Data bases are used for accessing and using the stored information – thus manipulating database information is inherent in any database, including DeForest's.

Reissue Application	Ohms, Computer Processing of dates outside the twentieth century, 1986
1. A method of processing symbolic representations of dates stored in a database, comprising the steps of	Ohms describes a "date processing method" (p. 244
providing a database with symbolic representations of dates stored therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	This data, DD, MM and YY is a classic short Gregorian date, see p. 247. The conversion function described at p. 248 works with any format which includes 2 digit years. Ohms describes the 100 year (i.e., 10-decade) period of time limitation at p.249. The ability to convert from this format to a four digit year format, CCYY, is described on p. 248, first in the paragraph describing windowing and in part in the next paragraph which points out that the conversion from one file format to another is "trivial".
selecting a 10-decade window with a Y_AY_B value for the first decade of the window Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	See p. 248, right hand column,-specify a year as the desired starting point of the range – this is Y_AY_B , which is no later than any year date in the data base
determining a century designator C_1C_2 for each symbolic representation of a date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B ; and	The century designation is determined by comparing the year date (Y_1Y_2) with Y_AY_B, if the year, Y_1Y_2, is greater then the century is the earlier one and vice versa, see p. 248.
reformatting the symbolic representation of the date with the values C_1C_2, Y_1Y_2, M_1M_2 , and D_1D_2 to facilitate further processing of the dates.	The "implied century" (see p. 248, right hand column) is C_1C_2 and treating the date as including the "implied century" data is the claimed "reformatting", since the data included the other parameters at the outset.

Reissue Application	Ohms, Computer Processing of dates outside the twentieth century, 1986
2. The method of claim 1, wherein the 10-decade window includes the decade beginning in the year 2000.	Ohms is directed to Y2K and by definition propose a window which includes the year 2000
3. The method of claim 2, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	Ohms is directed to Y2K and by definition propose century designators 19 and 20
4. The method of claim 1, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates.	Response, p. 14 admits that sorting after Y2K correction is part of the prior art.
7. The method of claim 1, wherein the step of providing a database includes the step of converting pre-existing date information having a different format into the format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator and Y_1Y_2 is the numerical year designator.	In the table on p. 247 Ohms teaches several date format conversions and, on p. 248 notes that conversion of isolated files to new date formats is "trivial".
9. The method of claim 1, including an additional step, after the step of reformatting, of storing the symbolic representation of dates and their associated information back into the database.	Ohms teaches that storing the reformatted dates can be done, see pp 248-9.
10. The method of claim 9, including the additional step, after the step of reformatting, of manipulating information in the database having the reformatted date information therein.	Data bases are used for accessing and using the stored information, thus the manipulating is inherent.

Patent 5,806,063, Reissue application, Claim 1	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing symbolic representations of dates stored in a database, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database, each item of data is a symbolic representation.
providing a database with symbolic representations of dates stored therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited. "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'.", there is a "minimum value of the year data in the 20th century" and a "maximum value of the year data in the 21st century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades.
selecting a 10-decade window with a Y_AY_B value for the first decade of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century date range and the lower value, n_2n_3, which is the maximum value of the 21st Century date range [0011].
determining a century designator C_1C_2 for each symbolic representation of a date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B, and	A comparison is made between the date data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn $\leq$ α, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of the date with the values C_1C_2, Y_1Y_2, M_1M_2, and D_1D_2 to facilitate further processing of the dates.	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator.

Reissue application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
2. The method of claim 1, wherein the 10-decade window includes the decade beginning in the year 2000.	The reference is directed to Y2K, i.e., the transition from the 20th to the 21st century and so, by definition, uses a window which encompasses the year 2000 [Object].
3. The method of claim 2, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	Since the reference is directed at Y2K [Object] the century indicators are "19" and "20" [Constitution].
4. The method of claim 1, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates.	After 4 digit year value is determined, "data sorting" is performed [Constitution].
5. The method of claim 1, wherein the step of reformatting includes the step of reformatting each symbolic representation of a date into the format $C_1C_2Y_1Y_2M_1M_2D_1D_2$.	Once the proper century indicator is determined, it is "appended" to the year data so as to combine the 4 digit year with month and day data [0015], this is the claimed format.
6. The method of claim 5, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates using a numerical-order sort.	Once the eight digit date data (four digit year, two digit month and day) is created, the key file 3 is compiled by "sorting" [0016]. A numerical sort can be used since, the eight digit date data "now accurately reflect the time sequence" [0012].

Reissue application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
8. The method of claim 1, wherein the step of selecting includes the step of selecting $Y_A Y_B$ such that Y_B is 0 (zero).	The reference proposes a "threshold value" of 50 [Action] which corresponds to $Y_A = 5$ and $Y_B = 0$.
9. The method of claim 1, including an additional step, after the step of reformatting, of storing the symbolic representation of dates and their associated information back into the database.	The key file 3 has the restored date keys and it is part of the database [0016] to correspond to this clause.
10. The method of claim 9, including the additional step, after the step of reformatting, of manipulating information in the database having the reformatted date information therein.	The act of manipulating information is the purpose of any database – it is inherent in the reference.

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Patent 5,806,063, Reissue application, claim 11	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of	The reference is directed at managing date keys of a data file,[Title] which is effected by processing date data in a database.
providing a database with dates stored therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator, all of dates falling within a 10-decade period of time which includes the decade beginning in the year 2000;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'.", there is a "minimum value of the year data in the 20th century" and a "maximum value of the year data in the 21st century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades. Finally it is apparent that the 10 decade period includes the decade beginning with the year 2000.
selecting a 10-decade window with a Y_AY_B value for the first decade of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century date range and the lower value, n_2n_3, which is the maximum value of the 21st Century date range[0011].
determining a century designator C_1C_2 for each date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B ;	A comparison is made between the date data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn ≤ α, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting each date in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$ to facilitate further processing of the dates; and	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining month and day data, transfers it to the key file compilation unit 5". [0015] That is, we start with $Y_1Y_2M_1M_2D_1D_2$ and append C_1C_2, to end up with $C_1C_2Y_1Y_2M_1M_2D_1D_2$. Note also that

	the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$	The key file compilation unit 5 arranges the data in ascending order "by performing sorting processing …". [0016]

Reissue application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
13. The method of claim 11, wherein the step of selecting includes the step of selecting $Y_A Y_B$ such that Y_B is 0 (zero).	The reference proposes a "threshold value" of 50 [Action] which corresponds to $Y_A = 5$ and $Y_B = 0$.
14. The method of claim 11, including an additional step, after the step of sorting, of storing the sorted dates and their associated information back into the database.	The key file 3 has the restored date keys and it is part of the database [0016] to correspond to this clause.
15. The method of claim 14, including the additional step, after the step of sorting, of manipulating information in the database having the reformatted date therein.	The act of manipulating information is the purpose of any database – it is inherent in the reference.

Reissue Application, claim 16	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
16. A method of processing symbolic representations of dates stored in a database, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date data in a database. Each item of date data is a symbolic representation
providing a database with symbolic representations of dates stored therein according to a format wherein M_1M_2 is the numerical month designator D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	The unprocessed database uses two digits to represent each of year, month and day data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'.", there is a "minimum value of the year data in the 20th century" and a "maximum value of the year data in the 21st century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades
selecting a window with a Y_AY_B value for a pivot date of the window, Y_AY_B being no later than the earliest year designator in the database;	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century and the lower value, n_2n_3, which is the maximum value of the 21st Century [0011]. Although not mentioned in this reference (nor in the specification of the application) those skilled in the art have applied the term "pivot date" to what the claim terms Y_AY_B and the reference refers to as the "threshold value" or α.
determining a century designator C_1C_2 for each symbolic representation of a date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B and;	A comparison is made between the date data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn $\leq \alpha$, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining

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database, without the addition of any new data field to the database with the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2, M_1M_2 and D_1D_2, in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates.	month and day data, transfers it to the key file compilation unit 5". [0015] That is, we start with $Y_1Y_2M_1M_2D_1D_2$ and append C_1C_2 , to end up with $C_1C_2Y_1Y_2M_1M_2D_1D_2$. The processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] Since this may be accomplished "without having to modify" the "existing files" [0018] it is clear that there has not been the addition of a "new data field".

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Reissue Application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
17. The method of claim 16, wherein the window includes at least a portion of the decade beginning in the year 2000.	The reference is directed to Y2K, i.e., the transition from the 20th to the 21st century and so, by definition, uses a window which encompasses the year 2000 [Object].
18. The method of claim 17, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	Since the reference is directed at Y2K [Object] the century indicators are "19" and "20" [Constitution].
19. The method of claim 16, including an additional step; after the step of reformatting of sorting the symbolic representations of dates.	After 4 digit year value is determined, "data sorting" is performed [Constitution].
20. The method of claim 16, wherein the step of reformatting includes the step of reformatting each symbolic representation of a date into the format $C_1C_2Y_1Y_2M_1M_2D_1D_2$ separately from the symbolic representations in the database.	Once the proper century indicator is determined, it is "appended" to the year data so as to combine the 4 digit year with month and day data [0015], this is the claimed format. - - - - - - - - - - - - The recitation of "reformatting … separately" cannot serve to distinguish the reference since there is no support in the specification for this feature.
21. The method of claim 20 including an additional step, after the step of reformatting, of sorting the symbolic representations of dates using a numerical—order sort.	Once the eight digit date data (four digit year, two digit month and day) is created, the key file 3 is compiled by "sorting" [0016]. A numerical sort can be used since, the eight digit date data "now accurately reflect the time sequence" [0012].
23. The method of claim 16, wherein the step of selecting includes the step of selecting Y_AY_B such that Y_B is 0 (zero).	The reference proposes a "threshold value" of 50 [Action] which corresponds to $Y_A = 5$ and $Y_B = 0$.
24. The method of claim 16, including an additional step, after the step of reformatting, of storing the symbolic representation of dates and their associated information back into the database.	The key file 3 has the restored date keys and it becomes part of the database [0016] to correspond to this clause.
25. The method of claim 24, including the additional step, after the step of reformatting, of manipulating information in the database having the reformatted date information therein.	The act of manipulating information is the purpose of any database – it is inherent in the reference.

Reissue application, claim 26	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date data in a database
providing a database with dates stored therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	The unprocessed database uses two digits to represent each of year, month and day data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'.", there is a "minimum value of the year data in the 20th century" and a "maximum value of the year data in the 21st century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades
selecting a window with a Y_AY_B value for a pivot date of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century date range and the lower value, n_2n_3, which is the maximum value of the 21st Century date range [0011]. Although not mentioned in this reference (nor in the specification of the application) those skilled in the art have applied the term "pivot date" to what the claim terms Y_AY_B and the reference refers to as the "threshold value" or α.
determining a century designator C_1C_2 for each date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B	A comparison is made between the year data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn ≤ α, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the database₁ without the addition of any new data field to the database with	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining month and day data, transfers it to

the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2, M_1M_2 and D_1D_2, in order to facilitate collectively further processing, the reformatted symbolic representations of each of the symbolic representations of each of the dates; and	the key file compilation unit 5". [0015] That is, we start with $Y_1Y_2M_1M_2D_1D_2$ and append C_1C_2, to end up with $C_1C_2Y_1Y_2M_1M_2D_1D_2$. The processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] Since this may be accomplished "without having to modify" the "existing files" [0018] it is clear that there has not been the addition of a "new data field".
sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$.	The key file compilation unit 5 arranges the data in ascending order "by performing sorting processing …". [0016]

Reissue Application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
28. The method of claim 26, wherein the step of selecting includes the step of: selecting Y_AY_B such that Y_B is 0 (zero).	The reference proposes a "threshold value" of 50 [Action] which corresponds to $Y_A = 5$ and $Y_B = 0$.
29. The method of claim 26, including an additional step after the step of sorting, of; storing the sorted dates and their associated information back into the database.	The key file 3 has the restored date keys and it is part of the database [0016] to correspond to this clause.
30. The method of claim 29, including the additional step, after the step of sorting, of: manipulating information in the database having the reformatted dates therein.	The act of manipulating information is the purpose of any database – it is inherent in the reference.

Reissue application, claim 31	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing symbolic representations of dates stored in a database, comprising the steps at:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date data in a database. Each data item is a symbolic representation.
providing a database with symbolic representations of dates stored therein according to a format wherein Y_1Y_2 is the numerical year designator:	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003
selecting a window with a Y_AY_B value for the first decade of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century date range and the lower value, n_2n_3, which is the maximum value of the 21st Century date range [0011].
determining a century designator C_1C_2 for each symbolic representation of a date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B ;	A comparison is made between the year data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn $\leq$ α, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2, in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates.	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining month and day data, transfers it to the key file compilation unit 5". [0015] That is, we start with $Y_1Y_2M_1M_2D_1D_2$ and append C_1C_2 , to end up with $C_1C_2Y_1Y_2M_1M_2D_1D_2$. Clearly this means each item has the values C_1C_2 and Y_1Y_2. The processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] Since this may be accomplished "without having to modify" the "existing files" [0018] it is clear that there has not been the addition of a "new data field".

Reissue Application, claim 32	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of:	The reference is directed at managing date keys of a data file,[Title] which is effected by processing date data in a database
providing a database with symbolic representations of dates stored therein according to a format wherein Y_1Y_2 is the numerical year designator	The unprocessed database uses two digits to represent each of year, month and day data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003].
selecting a window with a Y_1Y_2, value for the pivot year of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century date range and the lower value, n_2n_3, which is the maximum value of the 21st Century date range [0011]. Although not mentioned in this reference (nor in the specification of the application) those skilled in the art have applied the term "pivot date" to what the claim terms Y_AY_B and the reference refers to as the "threshold value" or α.
determining a century designator C_1C_2 for each symbolic representation of a date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B;	A comparison is made between the year data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn $\leq$ α, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each of the dates in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2, in order to facilitate collectively further processing the reformatted symbolic representations of each of the dates; and	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining month and day data, transfers it to the key file compilation unit 5". [0015] That is, we start with $Y_1Y_2M_1M_2D_1D_2$ and append C_1C_2 , to end up with $C_1C_2Y_1Y_2M_1M_2D_1D_2$. The processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] Since this may be accomplished "without having to

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	modify" the "existing files" [0018] it is clear that there has not been the addition of a "new data field".
sorting the dates in the form $C_1C_2Y_1Y_2$.	The key file compilation unit 5 arranges the data in ascending order "by performing sorting processing …". [0016]

Reissue Application, claim 33	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing symbolic representations of dates stored in a database, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database, each item of data is a symbolic representation
providing a database with symbolic representations of dates stored therein according to a format wherein Y_1Y_2 is the year designator,	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003].
selecting a window with a Y_AY_B value for the first decade of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century date range and the lower value, n_2n_3, which is the maximum value of the 21st Century date range [0011].
determining a century designator C_1C_2 for each symbolic representation of a date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B ; and	A comparison is made between the date data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn $\leq \alpha$, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the database, without changing any of the symbolic representations of a date in the database during the reformatting step, with the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2, in order to facilitate collectively further processing the reformatted symbolic representations of each of the dates.	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. The reformatted data has the form of $C_1C_2Y_1Y_2M_1M_2D_1D_2$. ---------- The meaning to be applied to the clause "without changing any of the symbolic representations of a data in the database during the reformatting step" is unclear since, neither the clause nor anything like it is found either in the Dickens specification or file history. There is then, no basis for distinguishing the reference.

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Reissue Application, claim 34	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:	The reference is directed at managing date keys of a data file,[Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000 [0005]. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003].
converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity,	The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without the addition of any new data field to the database for purposes of such windowing and converting; and,	Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The processing proceeds by selecting a "threshold value" or α which is "no later" than the earliest year in the database. The threshold value is selected as between $n_0 n_1$, the smallest 20th Century year and the lower value, $n_2 n_3$, which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value, α; if nn $> \alpha$, the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not $> \alpha$, then it is $\leq$) which means that the "threshold value" may be a date stored in the database. Since this processing may be accomplished "without having to modify" the

	"existing files" [0018] it is clear that there has not been the addition of a "new data field".
running a program collectively on each of the converted symbolic representations of each of the respective dates to sort or otherwise manipulate the dates represented by the converted symbolic representations, separately from the date data symbolic representations contained in the at least one date field of the database.	Sorting is effected as described in [0006]. Typically sorting is effected by "running a progran" and is thus inherent in the reference. The meaning to be attributed to the phrase "running a program to sort … separately from the date data symbolic representations contained in the at least one date field of the database" is difficult to determine since there is no such phrase or anything like it in the Dickens specification or file history. Clearly however, this does not represent a distinction between this clause of the claim and the reference.

Reissue Application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
35 A method of claim 34 further comprising the step of: opening the database prior to the step of converting.	Opening a database is typically the initial step for use. As such the step is inherent in the reference.
36. The method of claim 34 further comprising the step of: collectively sorting the converted symbolic representations prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
37. The method of claim 35 further comprising the step of: collectively sorting the converted symbolic representations prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
38. The method of claim 34 further comprising the step of: collectively manipulating the converted symbolic representations prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
39. The method of claim 35 further comprising the step of: collectively manipulating the converted symbolic representations prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
40. The method of claim 34 further comprising the step of: collectively sorting the converted symbolic representations according to a different data field contained in the database from the at least one date field, prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting "according to a different data field".
41.The method of claim 35 further comprising the step of: collectively sorting the converted symbolic representations according to	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or

a different data field contained in the database from the at least one date field, prior to the step of running the program on the converted symbolic representations.	manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting "according to a different data field".
42. The method of claim 34 further comprising the step of: collectively manipulating the converted symbolic representations according to a different data field contained in the database from the at least one date field, prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting "according to a different data field".
43. The method of claim 35 further comprising the step of: collectively manipulating the converted symbolic representations according to a different data entry field contained in the database from the at least one date field, prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting "according to a different data entry field".
44. The method of claim 34 wherein the program performs an operation which manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.	This claim merely calls for data manipulation of a database which is inherent in the reference.
45. The method of claim 35 wherein the program performs an operation which manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.	This claim merely calls for data manipulation of a database which is inherent in the reference
46. The method of claim 34 wherein the step of converting includes converting at least a. substantial portion of each of the plurality of symbolic representations of dates in the at least one date field and repeating this step until each of the date data entries in the at least one date field is converted into the format that does not have the ambiguity.	The reference calls for repetitively operating the conversion apparatus until all dates are converted.
47. The method of claim 35 wherein the step of converting includes converting at least a substantial portion of each of the plurality of symbolic representations of dates in the at least one date field and repeating	The reference calls for repetitively operating the conversion apparatus until all dates are converted

this step until each of the date data entries in the at least one date field is converted into the format that does not have the ambiguity.	
48. The method of claim 46 further comprising the steps of: collectively sorting the converted symbolic representations prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
49. The method of claim 47 further comprising the steps of: collectively sorting the converted symbolic representations prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
50. The method of claim 46 further comprising the step of: collectively manipulating the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
51. The method of claim 49 further comprising the step of; collectively manipulating the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
52. The method of claim 46 further comprising the step of: collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.	The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".
53. The method of claim 47 further comprising the step of: collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.	The reference teaches both sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".
54. The method of claim 52 further comprising the step of:	Since the reference deals with a database it inherently teaches

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collectively manipulating the converted symbolic.	manipulating the data as well as collectively manipulating the data.
55. The method of claim 53 further comprising the step of: collectively manipulating the converted symbolic representations	Since the reference deals with a database it inherently teaches manipulating the data as well as collectively manipulating the data
56. The method of claim 52 wherein the program performs an operation which manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.	Since the reference deals with a database it inherently teaches manipulating the data as well as collectively manipulating the data
57. The method of claim 53 wherein the program performs an operation which manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.	Since the reference deals with a database it inherently teaches manipulating the data as well as collectively manipulating the data
58. The method of claim 54 wherein the program performs an operation which manipulates the data in a data field associated with the at least one date field of the database according to the. converted symbolic representation of the date.	Since the reference deals with a database it inherently teaches manipulating the data as well as collectively manipulating the data
59. The method of claim 55 wherein the program performs an operation which manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.	Since the reference deals with a database it inherently teaches manipulating the data as well as collectively manipulating the data

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Reissue application, claim 60	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]
converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without modifying any of. the symbolic representations of dates in the at least one date field of the database for purposes of such windowing and converting;	Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or α which is "no later" than the earliest year in the database. The threshold value is selected as between $n_0 n_1$, the smallest 20th Century year and the lower value, $n_2 n_3$, which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value, α; if nn > α, the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not > α, then it is $\leq$) which means

	that the "threshold value" may be a date stored in the database. The meaning to be attributed to the phrase "converting … without modifying …" is not apparent since there is no such phrase (or anything like it) to be found in either the Dickens specification or the file history. Clearly, however, this phrase does not distinguish from the reference.
running a program on each of the converted symbolic representations of each of the respective dates to sort or otherwise manipulate data in the database according to the dates represented by the converted symbolic representations, separately from the date data symbolic representations of dates contained in the at least one date field of the database.	Sorting is effected as described in [0006]. Typically sorting is effected by "running a progran" and is thus inherent in the reference. Since the phrase "running a program to sort … separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

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Reissue application, claim 61	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]
converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations at each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without modifying any of the symbolic representations of dates in the at least date field of the database for purposes of such windowing and converting;	Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or α which is "no later" than the earliest year in the database. The threshold value is selected as between $n_0 n_1$, the smallest 20th Century year and the lower value, $n_2 n_3$, which is the maximum value of the 21st Century date range [0011]. A comparison is made between the date data, nn, and the threshold value, α; if nn > α, the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not > α, then it is $\leq$) which means that the

	"threshold value" may be a date stored in the database. The meaning to be attributed to the phrase "converting … without modifying …" is not apparent since there is no such phrase (or anything like it) to be found in either the Dickens specification or the file history. Clearly, however, this phrase does not distinguish from the reference.
running a program collectively on each of the converted symbolic representations of each of the respective dates to sort or otherwise manipulate the dates represented by the converted symbolic representations separately from the symbolic representations of dates contained in the at least one date field of the database.	Sorting is effected as described in [0006]. Typically sorting is effected by "running a progran" and is thus inherent in the reference. Since the phrase "running a program … to sort … separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

Reissue application, claim 62	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]
converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without the addition of any new data field to the database for purposes of such windowing and converting;	Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or α which is "no later" than the earliest year in the database. The threshold value is selected as between n_0n_1, the smallest 20th Century year and the lower value, n_2n_3, which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value, α; if nn > α, the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not > α, then it is $\leq$) which means

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	that the "threshold value" may be a date stored in the database.
storing the converted symbolic representations separate from the at least one date field of the database; and	Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing … separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.
running a program on the stored converted symbolic representations to sort or otherwise manipulate data in the database according to the dates represented by the converted symbolic representations, separately from the symbolic representations of dates contained in the at least one date field of the database.	Sorting is effected as described in [0006]. Since the phrase "running a program … to sort … separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history, the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

Reissue application, claim 63	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]
converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without the addition of any new data field to the database for purposes of such windowing and converting;	Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or α which is "no later" than the earliest year in the database. The threshold value is selected as between $n_0 n_1$, the smallest 20th Century year and the lower value $n_2 n_3$, which is the maximum value of the 21st Century [0011]. Then a comparison is made between the date data, nn, and the threshold value, α; if $nn > \alpha$, the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not $> \alpha$, then it is $\leq$) which means that the

	"threshold value" may be a date stored in the database.
storing the converted symbolic representations separate from the at least one date field of the database: and	Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing … separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.
running a program collectively on the stored converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations, separately from the symbolic representations of dates contained in the at least one date field of the database.	Sorting is effected as described in [0006]. Since the phrase "running a program … to sort … separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history, the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

Reissue application, claim 64	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field at the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of;	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]
converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without modifying any of the symbolic representations of dates in the at least one date field of the database for purposes of such windowing and converting;	Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or α which is "no later" than the earliest year in the database. The threshold value is selected as between $n_0 n_1$, the smallest 20th Century year and the lower value, $n_2 n_3$, which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value, α; if nn > α, the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not > α, then it is $\leq$) which means

	that the "threshold value" may be a date stored in the database. The meaning to be attributed to the phrase "converting … without modifying …" is not apparent since there is no such phrase (or anything like it) to be found in either the Dickens specification or the file history. Clearly, however, this phrase does not distinguish from the reference.
storing the converted symbolic representations separate from the at least one date field in the database; and	Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing … separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.
running a program on the stored converted symbolic representations to sort or otherwise manipulate data in the database according to the dates represented by the converted symbolic representations separately from the symbolic representations of dates contained in the at least one date field of the database.	Sorting is effected as described in [0006]. Since the phrase "running a program … to sort … separately from the symbolic representations of dates contained in the at least one date field of the database" is not found either in the Dickens specification or file history, the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

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Reissue Application, claim 65	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries comprising the steps of:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]
converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database,	Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or α which is "no later" than the earliest year in the database. The threshold value is selected as between $n_0 n_1$, the smallest 20th Century year and the lower value, $n_2 n_3$, which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value, α; if nn > α, the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not > α, then it is $\leq$) which means

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	that the "threshold value" may be a date stored in the database.
without modifying any of the symbolic representations of dates in the at least one date field of the database for purposes of such windowing and converting;	It is not apparent how "converting" can be effected without "modifying". There is no mention of converting without modifying in either the Dickens specification or file history. Consequently this cannot be used to distinguish the claim from the reference.
storing the converted symbolic representations separate from the at least one date field in the database; and	Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing … separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.
running a program collectively on the stored, converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations,	Sorting is effected as described in [0006]
separately from the symbolic representations of dates contained in the at least one date field of the database.	Since the phrase "running a program … to sort … separately from the symbolic representations of dates contained in the at least one date field of the database" is not found either in the Dickens specification or file history, the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

Reissue application, claim 66	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title
providing a database with dates stored in at least one date field therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator,	The unprocessed database uses two digits to represent year data, two digits for month data and two digits for day data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003].
selecting a window with a Y_AY_B value for a pivot date of the window Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	Assuming that the meaning to be attributed to "pivot date" is the common meaning, then the "threshold value" is the pivot date, which is the same as Y_AY_B. Ths assumption is necessary since neither the Dickens specification nor file history mentions "pivot date". The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century date range and the lower value, n_2n_3, which is the maximum value of the 21st Century date range [0011]
determining a century designator C_1C_2 for each date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B,	A comparison is made between the date data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn $\leq$ α, the other century designator, "20" is used [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015].
reformatting the symbolic representation of each symbolic representation of a date in a portion of the at least one date field in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2, M_1M_2, and D_1D_2; and	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. That is, we start with $Y_1Y_2M_1M_2D_1D_2$ and append C_1C_2 , to end up with $C_1C_2Y_1Y_2M_1M_2D_1D_2$.
repeating the step of reformatting until each symbolic representation of a date in the at least one date field has been reformatted in order to facilitate collectively further processing the reformatted symbolic	Since the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]

representations of each of the symbolic representations of each of the dates.	

Reissue Application, claim 67	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title]
providing a database with dates stored in at least one date field therein according to a format wherein Y_1Y_2 is the numerical year designator;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003].
selecting a window with a Y_AY_B value for a pivot date of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century and the lower value n_2n_3, which is the maximum value of the 21st Century date range [0011].
determining a century designator C_1C_2 for each date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B;	A comparison is made between the date data, nn, and the threshold value, α; if nn $> \alpha$, the century designator "19" is used, otherwise, that is if nn $\leq \alpha$, the other century designator, "20" is used [0015].]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015].
reformatting the symbolic representation of each symbolic representation of a date in a portion off the at least one date field in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2; and	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. The reference has added two digits, 19 or 20, to represent the century, just as described in the Dickens specification. To the extent this is "without the addition …" in the Dickens patent, so too it is in the reference.
repeating the step of reformatting until each symbolic representation of a date in the at least one date field has been reformatted in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates.	Since the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]

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Reissue Application, claim 68	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing symbolic representations of dates stored in a database, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title]
providing a database with symbolic representations of dates stored in at least one date field therein according to a format wherein Y_1Y_2 is the numerical year designator;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003].
selecting a window with a Y_AY_B value for the first decade of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the at least one date field of the database;	Assuming the term "window" is given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window". The assumption is necessary since the term "window" is not found in the Dickens specification. The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century date range and the lower value, n_2n_3, which is the maximum value of the 21st Century date range [0011]. The value of α defines a window of 10 decades duration.
determining a century designator for each symbolic representation of a date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B; and	A comparison is made between the date data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn $\leq$ α, the other century designator, "20" is used [0015]. Since the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in at least one date field in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2, in order to facilitate further processing of the reformatted symbolic representations of each of the symbolic representations of each of the dates, by running a program on the reformatted symbolic representations of each of the dates.	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. That is, we start with $Y_1Y_2M_1M_2D_1D_2$ and append C_1C_2 , to end up with $C_1C_2Y_1Y_2M_1M_2D_1D_2$. The reference has added two digits to represent the century, just as has Dickens. To the extent this is "without the addition …" in the Dickens patent, so too it is in the reference. The reference accomplishes its ends through use of a programmed machine, hence operation "by running a program" is inherent.

Reissue Application, claim 69	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title].
providing a database with dates stored in at least one date field therein according to a format wherein Y_1Y_2 is the numerical year designator;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003].
selecting a window with a Y_AY_B value for a pivot year of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database:	Assuming the term "window" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "window" and "pivot year" are not found in the Dickens specification. The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century date range and the lower value, n_2n_3, which is the maximum value of the 21st Century date range [0011]. The value of α defines a window of 10 decades duration.
determining a century designator C_1C_2 for each date in the at least one date field of the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B;	A comparison is made between the date data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn $\leq$ α, the other century designator, "20" is used [0015]. Since the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the at least one date field in the database, without the addition of any new data field to the database with the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2;	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. The reference has added two digits to represent the century, just as has Dickens, to the extent this is "without the addition ..." in the Dickens patent, so too it is in the reference.
sorting the reformatted symbolic representations of the dates in the form $C_1C_2Y_1Y_2$ and	Sorting is effected as described in [0006]. Both the reference and the Dickens specification describe sorting on $C_1C_2Y_1Y_2M_1M_2D_1D_2$.

running a program on the reformatted symbolic representations of each of the dates.	The "program" is the purpose for maintaining the file.

Reissue application, claim 70	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]
converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity,	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015
by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year, with the pivot year being less than or equal to the earliest date represented by the symbolic representation of dates stored in the at least one date field, without the addition of any new data field to the database, and	Assuming the term "window" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "window" and "pivot year" are not found in the Dickens specification. A threshold value is selected lying between $n_0 n_1$, the smallest 20th Century year and the lower value, $n_2 n_3$, which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value, α; if nn $> \alpha$, the "19" designator is selected, otherwise "20" is selected. The "threshold value" or pivot year is equal to or less than the earliest nn. The reference has added two digits, 19 or 20, to represent the century, just as is described in the Dickens specification. To the extent this is "without the addition …" in the Dickens patent, so too it is in the reference.

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without modifying any of the symbolic representations of dates in the at least one date field, for purposes of such windowing and converting and	The meaning to be attributed to the phrase "converting … without modifying …" is not apparent since there is no such phrase (or anything like it) to be found in either the Dickens specification or the file history. Clearly, however, this phrase does not distinguish from the reference.
running a program on the converted symbolic representations of each of the dates to sort or otherwise manipulate the dates represented by the converted symbolic representations, separately from the date data symbolic representations contained in the at least one date field of the database.	Sorting is effected as described in [0006]. Typically sorting is effected by a program and so "running a program … to sort" is inherent in the reference. Since the phrase "running a program … to sort … separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history, the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

Reissue application, claim 71	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method for representing and utilizing dates stored in at least one date field of the database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]
converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity,	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]
by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year, with the pivot year being less than or equal to the earliest date represented by a symbolic representation of dates stored in the at least one date field, and	Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The processing selects a "threshold value" or α which is "no later" than the earliest year in the database. A threshold value is selected lying between $n_0 n_1$, the smallest 20th Century year and the lower value, $n_2 n_3$, which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value, α; if nn > α, the "19" designator is selected, otherwise "20" is selected. This is the process, known to others as "windowing", although not mentioned in the specification. In this process, the "threshold value" is, according to prior art usage, the pivot year. although that term is not found in the

	Dickens specification.
without the addition of any new data field to the database for purposes of such windowing and converting;	The reference has added two digits, 19 or 20, to represent the century, just as is described in the Dickens specification. To the extent this is "without the addition …" in the Dickens patent, so too it is in the reference.
storing each of the converted symbolic representations of each of the dates separate from the database; and,	The key file 3 represents the stored dates. The meaning to be attributed to "storing … separate from the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.
running a program on the stored converted symbolic representations of each of the converted symbolic representations of the dates to sort or otherwise manipulate the dates represented by the converted symbolic representations,	Sorting is effected as described in [0006]. Typically sorting is effected by running a program and so this is inherent in the reference.
separately from the date data symbolic representations contained in the at least one date field of the database.	Since the phrase "running a program … to sort … separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history, the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

Reissue Application, claim 72	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing symbolic representations of dates stored in a database, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation
selecting a database with symbolic representations of dates stored therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The shows the use of two digits for year, month and date.
selecting a 10-decade window with a Y_AY_B value for the first decade of the window being no later than the earliest Y_1Y_2 year designator in the database;	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century and the lower value, n_2n_3, which is the maximum value of the 21st Century date range [0011]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'." and there is a "minimum value of the year data in the 20th century" and a "maximum value of the year data in the 21st century" with the "threshold value" in between these two. This is only possible if the span of the data base is 10 decades.
determining a century designator C_1C_2 for each symbolic representation of a date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B; and,	A comparison is made between the date data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn $\leq$ α, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the database with the values C_1C_2, Y_1Y_2, M_1M_2, D_1D_2 prior to collectively further processing information contained within the database associated with the respective dates.	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Thereafter the database is used for its intended purpose.

Reissue application, claim 73	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing symbolic representations of dates stored in a database comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation
providing a database with symbolic representations of dates stored therein according to a format wherein Y_1Y_2 is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'" and there is a "minimum value of the year data in the 20th century" and a "maximum value of the year data in the 21st century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades.
selecting a 10-decade window with a Y_AY_B value for the first decade of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century and the lower value, n_2n_3, which is the maximum value of the 21st Century date range [0011].
determining a century designator C_1C_2 for each symbolic representation of a date in the database C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B and,	A comparison is made between the date data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn $\leq$ α, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of the date with the values C_1C_2, Y_1Y_2, to facilitate further processing of the dates.	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator.

Reissue application, claim 74	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database.
providing a database with symbolic representations of dates stored therein according to a format wherein Y_1Y_2 is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'" and there is a "minimum value of the year data in the 20th century" and a "maximum value of the year data in the 21st century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades.
selecting a 10-decade window with a Y_AY_B value for the first decade of the window Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century years and the lower value, n_2n_3, which is the maximum value of the 21st Century years [0011].
determining a century designator C_1C_2, for each date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B;	A comparison is made between the date data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn $\leq$ α, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting each date in the form $C_1C_2Y_1Y_2$ to facilitate further processing of the dates; and,	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Strictly speaking the reference describes the data format $C_1C_2Y_1Y_2M_1M_2D_1D_2$ not $C_1C_2Y_1Y_2$. However, the Dickens specification has the same disclosure so there can be no distinction between the claim and the reference.

sorting the dates in the form $C_1C_2Y_1Y_2$.	Sorting is effected [0012] on the reformatted data. Both the reference and the Dickens specification describe sorting on the $C_1C_2Y_1Y_2M_1M_2D_1D_2$ date data, thus this recitation cannot distinguish from the reference.

Reissue Application, claim 75	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing symbolic representations of dates stored in a database, comprising the steps of	The reference is directed at managing date keys of a data file,[Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation
providing a database with symbolic representations of dates stored therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003], showing the use of two digits for year, month and day.
selecting a window with a Y_AY_B value for a pivot date of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database:	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century years and the lower value n_2n_3, which is the maximum value of the 21st Century years [0011]. The "threshold value" of the reference corresponds to the prior art term "pivot date", although that term is not found in the Dickens specification or file history.
determining a century designator C_1C_2 for each symbolic representation of a date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is greater than Y_AY_B; and	A comparison is made between the date data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn ≤ α, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2, M_1M_2, D_1D_2 in order to facilitate further processing of the reformatted symbolic representations, of each of the symbolic representations of each of the dates.	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y_1Y_2, M_1M_2, D_1D_2, the addition of "19" or "20" meets the requirement of having the values C_1C_2, Y_1Y_2, M_1M_2, D_1D_2 to facilitate further processing. The reference has added two digits to represent the century, just as in the Dickens specification. If this Diclkens specification supports the claimed feature of "without the

	addition of any new data field to the database" then that feature is anticipatedin the reference.

Reissue Application, claim 76	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of	The reference is directed at managing date keys of a data file,[Title] which is effected by processing date representations in a database.
providing a database with dates stored therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator;	The unprocessed database uses two digits to represent year data, two digits for month data and two digits for day, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]
selecting a window with a Y_AY_B value for a pivot date of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	The "threshold value" or α corresponds to Y_AY_B and it is "no later" than the earliest Y_1Y_2 since it is selected as between n_0n_1, the minimum value of the 20th Century and the lower value, n_2n_3, which is the maximum value of the 21st Century date range [0011]. The "threshold value" of the reference corresponds to the prior art term "pivot date", although that term is not found in the Dickens specification or file history.
determining a century designator C_1C_2 for each date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B;	A comparison is made between the year date data, nn, and the threshold value, α; if nn > α, the century designator "19" is used, otherwise, that is if nn $\leq$ α, the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2, M_1M_2, and D_1D_2, in order to facilitate further processing of the reformatted symbolic representations of each of the symbolic representations of each of the dates; and	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y_1Y_2, M_1M_2, D_1D_2, the addition of "19" or "20" meets the requirement of having the values C_1C_2, Y_1Y_2, M_1M_2, D_1D_2 to facilitate further processing.
sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$.	Sorting is effected [0012] using the full, 8 digit dates as specified.

Reissue Application	Shaughnessy US Patent 5,630,118
1. A method of processing symbolic representations of dates stored in a database, comprising the steps of	The disclosed software assigns a century value to a two digit year date (7/6+), which is processing of symbolic dates
providing a database with symbolic representations of dates stored therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	One format which can form an input is YYMMDD, see Date Type "B" in the appendix at col.18, This processing is limited to dates which span 100 years, see below
selecting a 10-decade window with a Y_AY_B value for the first decade of the window Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	software "determine[s] end of current 100 year cycle", step 16, fig. 2, 3 or 4, as the "end" of the 100 year range, the "end" year is one less than the beginning (if "37" is the last year of a 100 year period, "38" is the first year of the same period), the "end" year is no later than any date in the data base as claimed
determining a century designator C_1C_2 for each symbolic representation of a date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B ; and	the century designator is determined by comparing two digit representation to the end of the 100 year cycle date, if the year being processed is greater, then the earlier century value is assigned and vice versa; (col. 7, lines 5-15)
reformatting the symbolic representation of the date with the values C_1C_2, Y_1Y_2, M_1M_2 , and D_1D_2 to facilitate further processing of the dates.	the reformatting is described at 2/30-32; 6/57-

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Reissue Application	Shaughnessy 5,630,118
2. The method of claim 1, wherein the 10-decade window includes the decade beginning in the year 2000.	Shaughnessy is directed to Y2K and by definition propose a window which includes the year 2000
3. The method of claim 2, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	Shaughnessy is directed to Y2K and by definition propose century designators 19 and 20
4. The method of claim 1, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates.	Shaughnessy suggest a further sorting operation or an operation equivalent to sorting. Shaughnessy describes date comparisons (col 4, lines 37-62, col. 8, line 33-col. 12, line 19
5. The method of claim 1, wherein the step of reformatting includes the step of reformatting each symbolic representation of a date into the format $C_1C_2Y_1Y_2M_1M_2D_1D_2$.	Shaughnessy uses this format, see 6/58
6. The method of claim 5, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates using a numerical-order sort.	Shaughnessy teaches using the reformatted data for a date comparisons, see (col 4, lines 37-62, col. 8, line 33-col. 12, line 19). This is equivalent to sorting
7. The method of claim 1, wherein the step of providing a database includes the step of converting pre-existing date information having a different format into the format wherein M.sub.1 M.sub.2 is the numerical month designator, D.sub.1 D.sub.2 is the numerical day designator and Y.sub.1 Y.sub.2 is the numerical year designator.	Shaughnessy teaches a host of date formats (appendix in col. 18) and indicates they can be converted to the format using M, D and Y variables as claimed, see col. 8, lines 18-27.

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Reissue Application	Shaughnessy US Patent 5630118
11. A method of processing dates in a database, comprising the steps of	The disclosed software assigns a century value to a two digit year date (7/6+) which is processing of dates
providing a database with dates stored therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator, all of dates falling within a 10-decade period of time which includes the decade beginning in the year 2000;	One format which can form an input is YYMMDD, see Date Type "B" in the appendix at col.18, This processing is limited to dates which span 100 years, i.e., a 10-decade period (see below)
selecting a 10-decade window with a Y_AY_B value for the first decade of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	software "determine[s] end of current 100 year cycle", step 16, fig. 2, 3 or 4, as the "end" of the current cycle it is also at least as "early" as any date in the database, for example, if "37" were the end of the 100 year period, then "38" would be the beginning and either "37" or"38" would be no later than any date in the range, as claimed,
determining a century designator C_1C_2 for each date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B;	a century designator is determined by comparing a two digit year representation to the end of the 100 year cycle date, if it is greater, then the earlier century value is assigned and vice versa; (col. 7, lines 8-13)
reformatting each date in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$ to facilitate further processing of the dates; and	the reformatting is described at 2/30-32 and 6/57-
sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$.	sorting is a well known operation for the date comparison described at 1/26 and at column 8

Reissue Application	Shaughnessy 5,630,118
12. The method of claim 11, wherein the step of providing a database includes the step of	
converting pre-existing date information having a different format into the format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator and Y_1Y_2 is the numerical year designator.	Shaughnessy teaches a host of date formats which can be converted to the format using M, D and Y variables as claimed, see the appendix at column 18, the conversion among these formats is taught at column 8, lines 18-27
15. The method of claim 14, including the additional step, after the step of sorting, of manipulating information in the database having the reformatted date therein.	Data bases are used for accessing and using the stored information - thus manipulating database information is inherent in any database, including Shaughnessy.

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Reissue Application, claim 16	Shaughnessy 5,630,118
16. A method of processing symbolic representations of dates stored in a database, comprising the steps of:	The disclosed software assigns a century value to a two digit year date (7/6+), which is processing of symbolic dates
providing a database with symbolic representations of dates stored therein according to a format wherein M_1M_2 is the numerical month designator D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	One format which can form an input is YYMMDD, see Date Type "B" in the appendix at col.18, This processing is limited to dates which span 100 years, see below
selecting a window with a Y_AY_B value for a pivot date of the window, Y_AY_B being no later than the earliest year designator in the database;	software "determine[s] end of current 100 year cycle", step 16, fig. 2, 3 or 4, as the "end" of the 100 year range, the "end" year is one less than the beginning (if "37" is the last year of a 100 year period, "38" is the first year of the same period), the "end" year is no later than any date in the data base as claimed
determining a century designator C_1C_2 for each symbolic representation of a date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B and;	the century designator is determined by comparing two digit representation to the end of the 100 year cycle date, if the year being processed is greater, then the earlier century value is assigned and vice versa; (col. 7, lines 5-15)
reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database with the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2, M_1M_2 and D_1D_2, in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates.	the reformatting is described at 2/30-32; 6/57- ------ While Shaughnessy adds two digits to the YYMMDD data, this is the same as the only Dickens disclosure and so this clause cannot distinguish the reference
22. The method of claim 16, wherein the step of providing a database includes the step of converting pre—existing date information having a different format into the format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day	Shaughnessy teaches a host of date formats (appendix in col. 18) and indicates they can be converted to the format using M, D and Y variables as claimed, see col. 8, lines 18-27.

designator and Y_1Y_2 is the numerical year designator.	

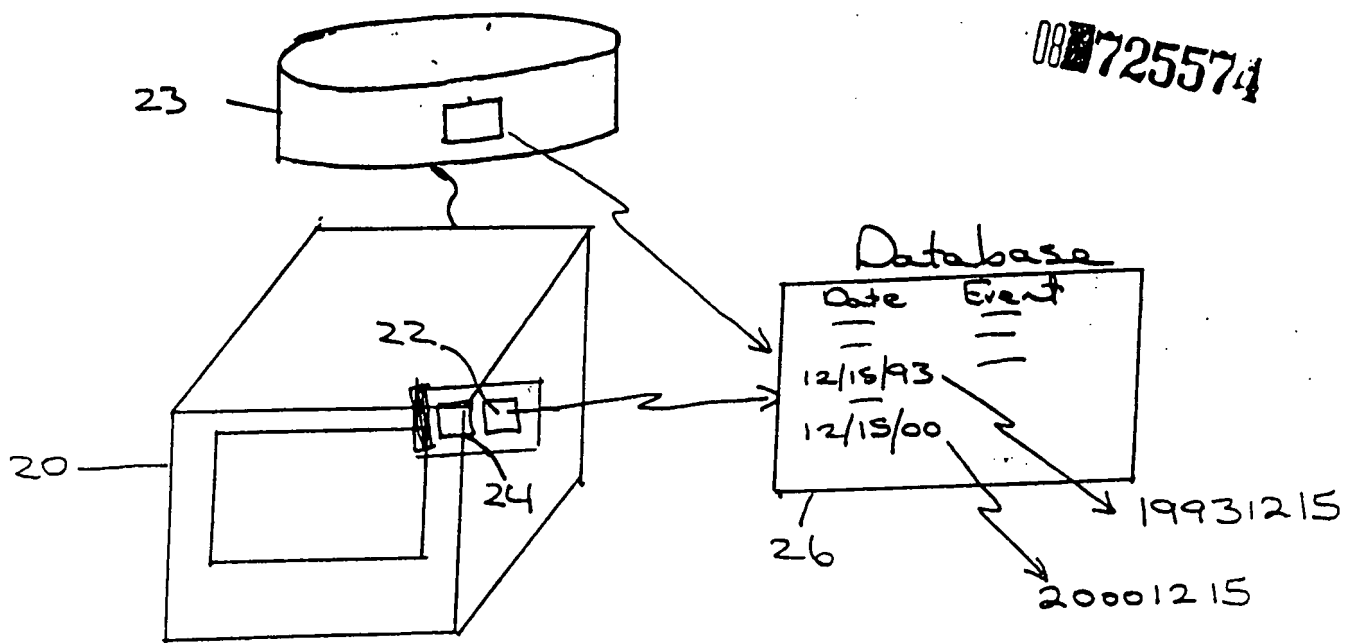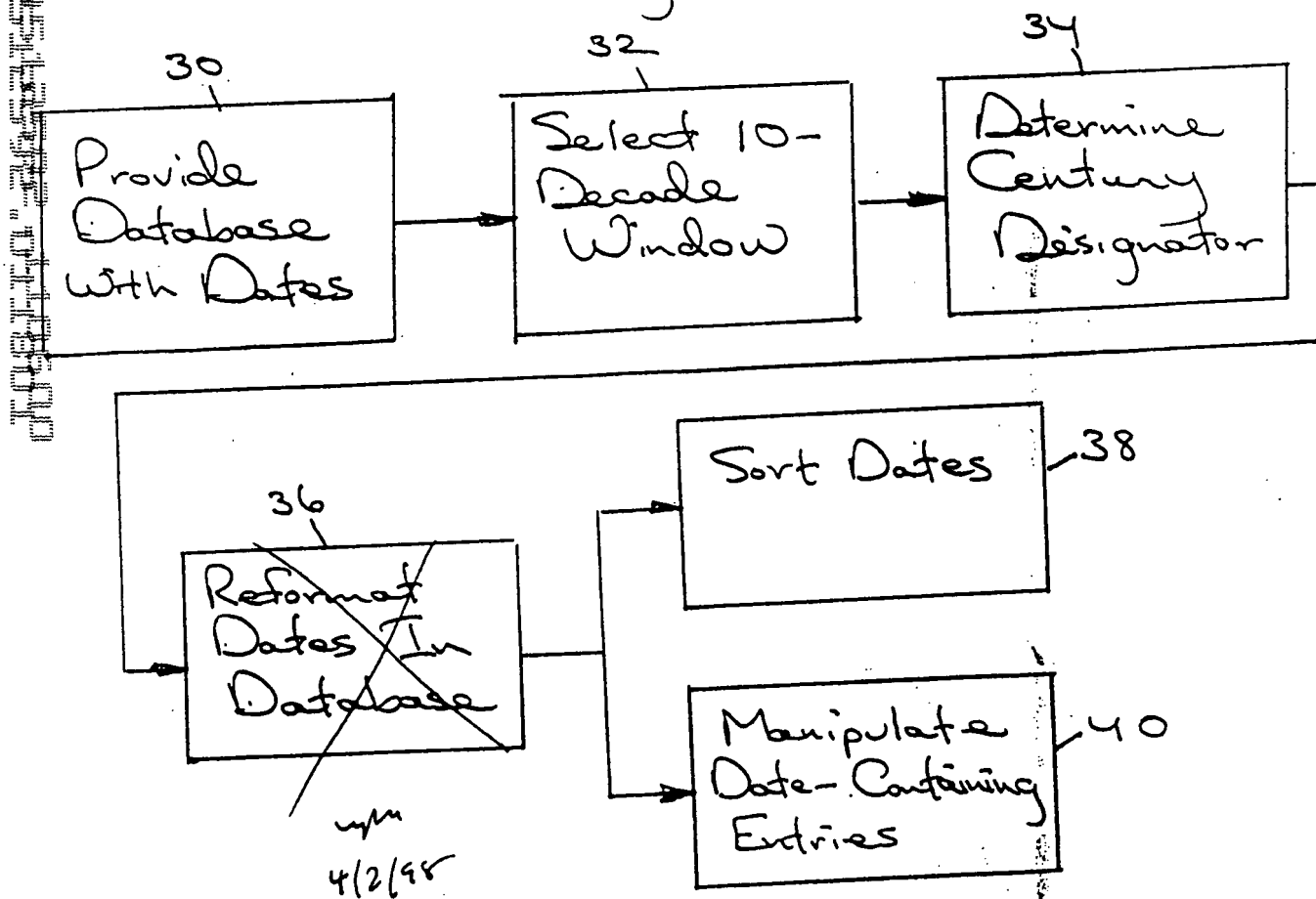| Reissue application, claim 26	Shaughnessy 5,630,118
A method of processing dates in a database, comprising the steps of:	The disclosed software assigns a century value to a two digit year date (7/6+), which is processing of symbolic dates
providing a database with dates stored therein according to a format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator, and Y_1Y_2 is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	One format which can form an input is YYMMDD, see Date Type "B" in the appendix at col.18, This processing is limited to dates which span 100 years, see below
selecting a window with a Y_AY_B value for a pivot date of the window, Y_AY_B being no later than the earliest Y_1Y_2 year designator in the database;	software "determine[s] end of current 100 year cycle", step 16, fig. 2, 3 or 4, as the "end" of the 100 year range, the "end" year is one less than the beginning (if "37" is the last year of a 100 year period, "38" is the first year of the same period), the "end" year is no later than any date in the data base as claimed
determining a century designator C_1C_2 for each date in the database, C_1C_2 having a first value if Y_1Y_2 is less than Y_AY_B and having a second value if Y_1Y_2 is equal to or greater than Y_AY_B	the century designator is determined by comparing two digit representation to the end of the 100 year cycle date, if the year being processed is greater, then the earlier century value is assigned and vice versa; (col. 7, lines 5-15)
reformatting the symbolic representation of each symbolic representation of a date in the database₁ without the addition of any new data field to the database with the reformatted symbolic representation of each date in the database having the values C_1C_2, Y_1Y_2, M_1M_2 and D_1D_2, in order to facilitate collectively further processing, the reformatted symbolic representations of each of the symbolic representations of each of the dates; and	the reformatting is described at 2/30-32; 6/57- ------ While Shaughnessy adds two digits to the YYMMDD data, this is the same as the only Dickens disclosure and so this clause cannot distinguish the reference
sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$.	sorting is a well known operation for the date comparison described at 1/26 and at column 8
27. The method of claim 26, wherein the step of providing a database includes the step of: converting pre-existing date information having a different format into the format wherein M_1M_2 is the numerical month designator, D_1D_2 is the numerical day designator and Y_1Y_2 is the numerical year designator.	Shaughnessy teaches a host of date formats (appendix in col. 18) and indicates they can be converted to the format using M, D and Y variables as claimed, see col. 8, lines 18-27.

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22

24

Database

Date   Event
─────   ─────

12/15/93

12/15/00

26

19931215

20001215

Fig 1

30	32	34
Provide Database With Dates	Select 10-Decade Window	Determine Century Designator

36
~~Reformat Dates In Database~~

wm
4/2/98

Sort Dates   38

Manipulate Date-Containing Entries   40

Fig 2